Skin Types Skin Type I Skin Type II Skin Type III Skin Type IV Skin Type V	r 1 utes utes utes	Week 2 Week 3 Unable to tan. Do not expose Skin Type I to see 5 minutes See 5 minutes See 8 minutes See 8 minutes See 9 minutes See 9 minutes	Week 2 Week 3 Week 4 Unable to tan. Do not expose Skin Type I to indoor tanning. 5 minutes 8 minutes 15 minute 8 minutes 13 minutes 20 minute	Week 4 Indoor tanning. 12 minutes 15 minutes 20 minutes
oviii i ybe vi	o IIIII dies	10 minutes	16 minutes	20 minutes

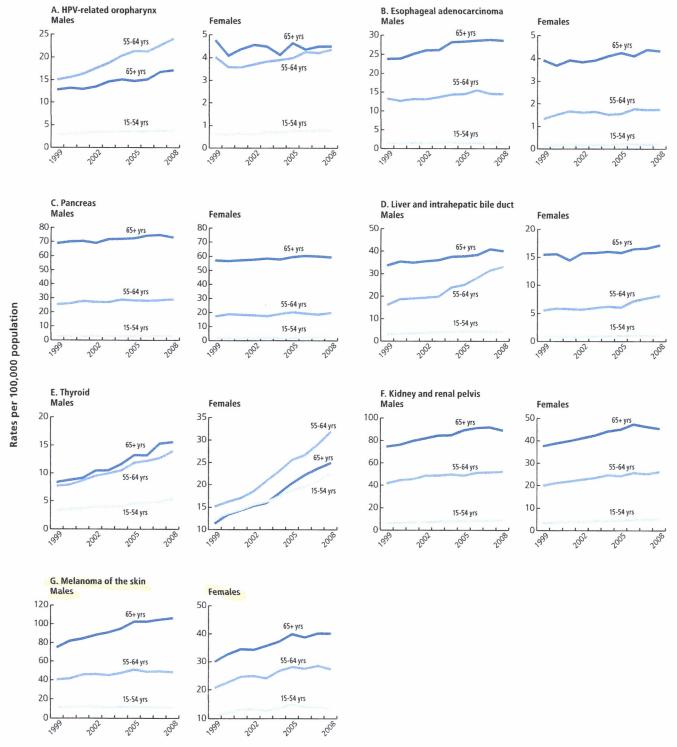
Less than 5 percent of North Americans are what is called "Skin Type I" – which includes people of Northern European heritages (some Irish or English people, for example) whose skin is so fair that it cannot tan without burning. North American indoor tanning protocol is not to allow these people to tan in salons, and our skin type

iii - International Smart Tan Network

EXHIBIT <u>5</u>



Figure 1. Incidence Rates* by Sex and Age for Cancers with Increasing Trends, 1999-2008.



HPV = human papillomavirus

Source: North American Association of Central Cancer Registries. Data are collected by cancer registries participating in NCI's SEER program and CDC's National Program of Cancer Registries.

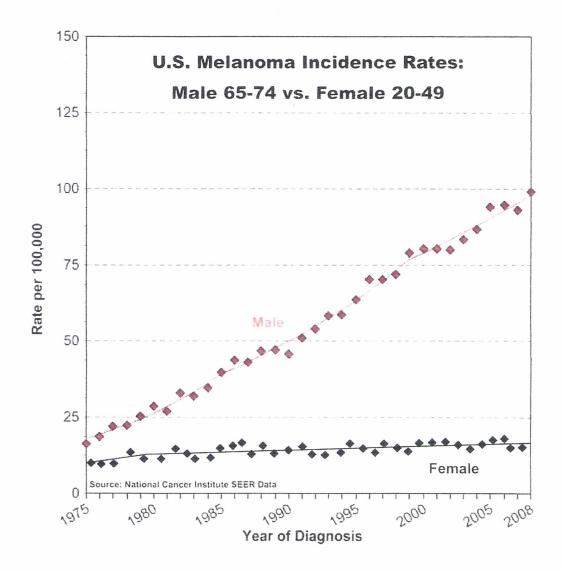
American Cancer Society, Surveillance Research, 2012

^{*}Age adjusted to the 2000 US standard population. Note the scale of the Y axis differs between cancer sites and genders.



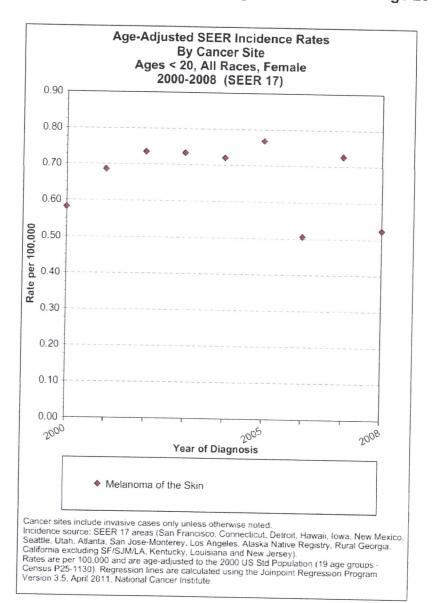
MELANOMA INCIDENCE: INCREASING IN MEN

The National Cancer Institute shows that melanoma incidence is increasing much faster in men than in women since the early 1970s. For women under age 50, incidence rates have actually leveled off and are declining. But dermatology industry lobbying groups continue to promote the opposite -- leading the press to believe that melanoma is increasing fastest in young women. The best data suggest otherwise.





National Cancer Institute Data: Melanoma Incidence Decreasing in Women Under Age 20



WHAT THIS CHART SHOWS:

Melanoma incidence in women under 20 is extremely rare -- about 1 case per 200,000 -- and has decreased in the past 10 years, according to the National Cancer Institute's data.





Tanning beds: What do the numbers really mean?

May. 7, 2010

Dr. Ivan Oransky, M.D., editor of Reuters Health, AHCJ treasurer

May has been declared "Melanoma Awareness Month" or "Skin Cancer Awareness Month" – depending on which group is pitching you – and reporters are doubtlessly receiving press releases and announcements from a number of groups, including the Melanoma Research Foundation, the Skin Cancer Foundation, hospitals, doctors and other organizations.

Those press releases often point to the World Health Organization, which reports that "use of sunbeds before the age of 35 is associated with a 75% increase in the risk of melanoma" – a statistic often repeated in news stories about tanning beds. But what does that really mean? Is it 75 percent greater than an already-high risk, or a tiny one? If you read the FDA's "Indoor Tanning: The Risks of Ultraviolet Rays," or a number of other documents from the WHO and skin cancer foundations, you won't find your actual risk.

That led AHCJ member Hiran Ratnayake to look into the issue in March for *The* (Wilmington, Del.) *News Journal*, after Delaware passed laws limiting teens' access to tanning salons. The 75 percent figure is based on a review of a number of studies, Ratnayake learned. The strongest such study was one that followed more than 100,000 women over eight years. But as Ratnayake noted, that study "found that less than three-tenths of 1 percent who tanned frequently developed melanoma while less than two-tenths of 1 percent who didn't tan developed melanoma." That's actually about a 55 percent increase, but when the study was pooled with others, the average was a 75 percent increase. In other words, even if the risk of melanoma was 75 percent greater than two-tenths of one percent, rather than 55 percent greater, it would still be far below one percent.

For some perspective on those numbers, Ratnayake interviewed Lisa Schwartz, M.D.,M.S., whose work on statistical problems in studies and media reports is probably familiar to many AHCJ members. "Melanoma is pretty rare and almost all the time, the way to make it look scarier is to present the relative change, the 75 percent increase, rather than to point out that it is still really rare," Schwartz, a general internist at Veterans Affairs Medical Center in White River Junction. Vt.. told him.

In a nutshell, the difference between skin doctors' point of view and Schwartz's is the difference between relative risk and absolute risk. Absolute risk just tells you the chance of something happening, while relative risk tells you how that risk compares to another risk, as a ratio. If a risk doubles, for example, that's a relative risk of 2, or 200 percent. If it halves, it's .5, or 50 percent. Generally, when you're dealing with small absolute risks, as we are with melanoma, the relative risk differences will seem much greater than the absolute risk differences. You can see how if someone is lobbying to ban something – or, in the case of a new drug, trying to show a dramatic effect – they would probably want to use the relative risk.

This is not an argument for or against tanning beds. It's an argument for clear explanations of the data behind policy decisions. For some people, the cosmetic benefits of tanning beds – and the benefit of vitamin D, for which there are, of course, other sources – might be worth a tiny increase in the risk of melanoma. For others, any increased risk of skin cancer is unacceptable. (And of course, for the tanning industry, the benefits can be measured in other ways – dollars.) But if reporters leave things at "a 75 percent increase," you're not giving your readers the most important information they need to judge for themselves.

So when you read a study that says something doubles the risk of some terrible disease, ask: Doubles from what to what?